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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/671,219	09/25/2003	Yuki Hamada	23378	8231
24932	7590	06/08/2006		
LAUBSCHER & LAUBSCHER, P.C. 1160 SPA ROAD SUITE 2B ANNAPOLIS, MD 21403			EXAMINER MENON, KRISHNAN S	
			ART UNIT	PAPER NUMBER
			1723	

DATE MAILED: 06/08/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/671,219	HAMADA ET AL.	
	Examiner	Art Unit	
	Krishnan S. Menon	1723	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 15 September 2003.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-8 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-8 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claims 1-8 are pending as preliminarily amended on 9/3/03

Double Patenting

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

Claims 1-4 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-4 of copending Application No. 10/653,869. Although the conflicting claims are not identical, they are not patentably distinct from each other because although the air suction device of the instant application is not branched in the vicinity of the nozzle as in the copending application, the air suction device of the copending application still anticipates all the limitations of the air suction device of the instant application (anticipation is the epitome of obviousness). As for the copending application describing the liquid tank as being "tightly closed", in light of the specification of the instant application, the "tightly-closed" is properly interpreted as being "air tight".

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

Drawings

The drawings are objected to because of the following:

Figures 7 and 8 should be designated by a legend such as **--Prior Art--** because only that which is old is illustrated (Applicant uses the word "earlier" to describe the

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inventions of figures 7-8, see e.g. the first and third paragraphs on page 2). See MPEP § 608.02(g).

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as “amended.” If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either “Replacement Sheet” or “New Sheet” pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(a) Claims 1 and 4 are rejected under 35 U.S.C. 102(b) as being anticipated by the German Reference DE 287456, hereinafter '456.

As shown in his drawings, '456 teaches a liquid supply system comprising a tightly-closed liquid tank (a), a nozzle (l) connected thereto through a liquid supply pipe (s). Pressurized air is supply to the nozzle from element g and pressurized air is supplied to the tank via line d at a desired pressure. An air suction device (q) creates a vacuum space in the upper part of the tank [as in claims 1 and 4]. Concerning the "wherein" clause at the end of claim 1, it is contended that such is a method step that fails to structurally limit the apparatus, but that a change in pressure of the applied pressurized gas would necessarily change the flow characteristics of the system.

(b) Claims 1-7 are rejected under 35 U.S.C. 102(b) as being anticipated by Phelps (U.S. 3,168,862).

As shown in his figures and explained in his description, Phelps teaches a liquid supply system comprising a tank 14 and a nozzle 24 delivering tank liquid by vacuum-suction and injection. Pressurized air is supplied to the nozzle via line 22 and the space above the liquid level in the tank is subjected to either suction or a super-atmospheric pressure (see the last line of the abstract) [as in claims 1 and 4-6]. The flow is regulated by a controlling the positive pressure supply to the tank via valve 42 (and the user thereof) [as in claim 2]. The valve and the user thereof control the mass of the air flowing therethrough, wherein the mass is represented by the pressure indicated by gauge 64 (col. 2, lines 30-32) [as in claim 3]. See the entire description. Treatment

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liquid supply pipe connected to the vacuum suction pipe as claimed – see line 30. Tank 10 can be a wash liquid tank, and is connected to the nozzle. “Wash liquid tank” is functional language; the tank 10 is capable of holding wash liquid.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

(c) Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over Phelps.

Phelps teaches a system comprising an air-tight treatment liquid tank (14), treatment liquid supply device (10), treatment liquid supply pipe (12), valve (18) in supply pipe (12), nozzle (24, figure 1 or siphon tip 80, figure 3 or 4), second treatment liquid pipe to the nozzle (26 or 76 or 76'), second valve in the line (26 or 76) - valve (74) in figure 3, pressurized air supply device connected to the nozzle (line 22 to the nozzle (24) venturi), positive pressure supply device (figure 1: 28, 30, 36, 34 and nozzle 24'; figure 2 venturi system 52 and line 60), pressure control device (system 58 in figure 2 or system including 42, 40 and 38 of figure 1 with 24').

Claim 8 differs from the teaching of Phelps in having the ‘air suction device’ pipe connection from the upper side of the treatment tank to the nozzle to produce vacuum on the inner space of the tank. The reference produces a vacuum in the inner space of

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tank (14) through line (34 or 60), which is not connected to the liquid line 26 at a point near the vicinity of the nozzle as required by the claim, but to a separate venturi 24' or 54. Applicant's purpose of having the line 12 in figure 1 is purely for evacuation of the space S above the tank at start-up and during operation to fill/replenish the tank with fluid 5, at which time the valve V2 is kept closed and there is no liquid spray. In other words, applicant does not disclose that valves V2 and V3 are open at the same time (see page 7 paragraph 5 and 6, and page 11 paragraph 3-5 of the specification). Applicant's disclosure supports liquid spray only by having a positive pressure in the space S (paragraph 4, page 8). Using the vacuum produced by the venturi nozzle 11 just to fill the tank would be obvious to one of ordinary skill in the art. The reference teaches having a vacuum to more accurately control the process during the spray process. Having a vacuum to fill the tank is also possible in the reference.

Regarding the integral unit, making integral (one piece) or separable (two-part) would be a matter of obvious engineering choice (*In re Larson*, 340 F.2d 965, 968, 144 USPQ 347, 349 CCPA 1965); *In re Dulberg*, 289 F.2d 522, 523, 129 USPQ 348, 349 (CCPA 1961)).

(d) Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over Enblom (US 3,595,481) in view of Phelps.

Enblom teaches a system in which the treatment liquid tank (17) is connected to the nozzle (45) with two lines, one connecting the upper side (line 19) and the other connecting the lower side (line 20) to the nozzle. Valves (35) for shut-off of the lines.

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connecting the lower side (line 20) to the nozzle. Means of compressed gas connected to the nozzle (the engine). Valves (35) for shut the lines off.

Enblom does not teach the other details of the claim, which are taught by Phelps as in claim 1 above, particularly, in figures 1- 3. It would be obvious to one of ordinary skill in the art at the time of invention to have the teachings of Phelps in the teaching of Enblom to have the Enblom system modified for continuous operation by having the supply tank, and the means for replenishing the treatment tank (17) from the supply tank as taught by Phelps (see column 2 line 71 – column 3 line 15).

The integral unit limitation is not patentable as above (In re Larson)

Conclusion


The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Reference Walkup (US 817,819) teaches the top and bottom of the treatment liquid tank as being separately connected to the same nozzle.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Krishnan S. Menon whose telephone number is (571) 272-1143. The examiner can normally be reached on 8:00a-4:30p M-F..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wanda L. Walker can be reached on (571) 272-1151. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.


Krishnan S. Menon
Examiner
AU 1723

6/3/06